

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (canceled).

11. (New) A device for ascertaining an amount of charge that is able to be drawn from an energy storage unit, up to at least one specified cutoff threshold, comprising:

a charge predictor for calculating, in the case of a specified discharge current characteristic, the amount of charge that is able to be drawn from the energy storage unit, on the basis of a mathematical energy storage model that mathematically represents electrical properties of the energy storage unit; and

an estimator for ascertaining at least one of state variables and parameters for the mathematical energy storage model, based on operating performance quantities of the energy storage unit.

12. (New) The device as recited in Claim 11, wherein the energy storage unit is a battery, and wherein the mathematical energy storage model is a battery model that includes at least a mathematical model for an internal resistance, an acid diffusion resistance, and a charge transfer polarization.

13. (New) The device as recited in Claim 12, wherein the estimator ascertains at least an open-circuit voltage and a concentration polarization as the state variables.

14. (New) The device as recited in Claim 13, wherein the estimator additionally ascertains a charge transfer polarization.

15. (New) The device as recited in Claim 12, wherein the charge predictor ascertains an amount of charge that is able to be drawn until a specified minimum electrolyte voltage that represents a first cutoff criterion is reached.

16. (New) The device as recited in Claim 15, wherein the charge predictor ascertains an amount of charge that is able to be drawn until a specified minimum voltage of the energy storage unit that represents a second cutoff criterion is reached.

17. (New) The device as recited in Claim 16, wherein the charge predictor ascertains an amount of charge that is able to be drawn until a specified minimum capacity that represents a third cutoff criterion is reached.

18. (New) The device as recited in Claim 12, further comprising:

a voltage predictor for ascertaining, as a function of a load current characteristic that is specified, a corresponding load voltage that arises on the basis of the specified load current characteristic.

19. (New) A method for ascertaining an amount of charge that is able to be drawn from an energy storage unit, up to at least one specified cutoff threshold, comprising:

calculating, using a charge predictor, in the case of a specified discharge current characteristic, the amount of charge that is able to be drawn from the energy storage unit, on the basis of a mathematical energy storage model that mathematically represents electrical properties of the energy storage unit, wherein the energy storage unit is a battery; and

ascertaining, using an estimator, at least one of state variables and parameters for the mathematical energy storage model, based on operating performance quantities of the energy storage unit.

20. (New) The method as recited in Claim 19, wherein the charge predictor calculates an amount of charge that is able to be drawn until a specified minimum capacity that represents a cutoff criterion is reached, and wherein the charge predictor takes into account a load voltage supplied to the charge predictor by a voltage predictor, the voltage predictor ascertaining the load voltage as a function of a specified load current characteristic.